SPECTRUM
INFORMATION SERVICES

Control Costs Without Compromising Quality:

The Ten Things You Need To Know Before You Outsource a Scanning Project:

The "CCCQ" Theory

1) Turn-Around Time

The longer the turn-around time the more cost effective the entire process is. Planning a schedule for when documents can be out of the building is the key. The longer the time period – the more cost effective price per image will be.

Turn around times play a significant role in the overall pricing. Pricing is based upon a reasonable time frame as deemed by both the client and the vendor. However, should reasonable timeframe need to be compressed into a very short one this might force other clients projects to the back burner in order to accommodate such a rush. This rush may require additional weekend labor and overtime that could lead to a price per image increase? That is why it is so important to plan in advance when the documents can be out of the building and for how long whenever possible. If the client is able to plan out in advance when the documents can be scanned and allow them to be out of their (the clients) possession for an extended period of time, this often times gives the vendor ***additional*** time to complete the project. By providing the vendor the additional time to scan the documents, the vendor is able to scan them as "Filler Work". The filler work then enables the vendor the opportunity to fill the valleys of slow production. This helps to keep a more consistent work flow going and in so doing, are often times able to provide a reduction in the price per image.

In the event that an unusually rapid turn-around timeframe is necessary, price per image can be expected to increase due to the necessary postponement of work already in progress with other clients.

2) Document Tracking

Important for two reasons:

1) Assurance that all documents remain in tact and in proper order throughout the process.

2) Logging process is precise enough to allow verification of all scanned items with the physical documents.

It is both important and very helpful if the client can provide some type of database of what is being sent out for scanning. At the minimum the client should have a simple spreadsheet identifying the boxes that were sent out, when the client sent them out and when they should return. A more detailed database should contain information about the contents of each box i.e. file names if possible. This is helpful not only from a tracking perspective but

also for exception reporting process to. This way when the scanned database is matched up against the provided database the vendor can see if there are any variances and have them investigated and corrected.

Once documents arrive at the scanning facility, all boxes should be bar-coded and digitally tracked. This is important for two reasons the first is to ensure the client gets back exactly what they sent out.

Second, since all documents should be logged into a tracking system they should be much easier to find should the client need to retrieve a specific document while it is out in one of several stages of the production environment. After the documents are logged they are segregated into batches and prepared for scanning. The logging process will include capturing box and batch information, noting documents, an average page count, and other such control counts which are available to allow a vendor to verify physical page counts with digital image counts in the scan process.

3) Document Preparation

Prior to document scanning, all documents are to be prepped by the vendor. Prepping documents typically referrers to removing staples, paper clips and obstructions, repairing any torn or dog-eared documents, affixing small un-scannable pieces of paper to larger scannable sheets, and inserting separator sheets (*more on this later*) between each document to identify the start of a new document.

In the document preparation process there are ways in which the client can help to contain costs without compromising document integrity. In some cases the vendor or client could save time prepping the documents by quickly rearranging their order prior to prep. This places like type / sized documents together i.e. single page with single page and multi-page with multi-page. This has as much to do with the prep process before scanning as it does, how the client gets the documents back. If the scanning vendor can rearrange the documents and not have to worry about putting everything back in its original order or condition then that will help to contain cost.

Another similar consideration in the prep process is the DEPREP process itself. Do the documents have to be re-stapled, re-clipped, put back in all the rings of a three ring binder etc. or can they just be rubber banded together and placed back in the binder for example. All these things take labor, time and cost money.

Lastly, does the client have resources available to do the prep work or some part thereof with the proper training, If so, then perhaps the client would consider doing as much of the prep as possible prior to sending the documents out for scanning. That would require things like inserting the BAR CODED slip sheets before each new document or removing staples and clips etc... The average box has no average time. They range from one hour a box to well over four hours a box depending on the number of documents, scan readiness, multiple sizes and overall document condition. For example a box containing many small post-its and receipts will require a lot more time then clean standard 8-1/2”x11” bond paper. As you see the savings to the client could be significant depending on your documents types and conditions. Caveat: it will take the client’s team a little longer to prep then a staff that is highly trained and experienced..

4) Document Scanning

Cost containment with regards to the scanning of documents has more to do with the trade-off between image clarity and file size. Simply put: the greater the clarity – the greater the file size – the higher the [storage] cost. All

documents are scanned in their batch, matched to the count, and logged in a tracking database. All documents should be manually fed through high speed / high performance Bell & Howell scanners utilizing the latest in VRS technology for de-skewing (ensuring all documents are straight), de-speckling (removing many of the spots and speckles on paper) and image enhancement (taking a poor image (green-bar) or a light photocopy and enhancing it into a more legible document). This also acts as a vendor's first line of quality control. If the documents are being manually fed in to the scanner, operators are able to balance speed and accuracy. As each document is fed into the scanner the scanner operator should be able to view that document on a monitor directly in front of them to ensure everything is going in properly on the front end without any document overlap. And while this is a somewhat slower process than auto-mode this helps to reduce the number of double feeds. The trade off in sending documents through on high-speed auto mode is that they go through more quickly but require more time on the back end doing re-scans and quality control.

To optimize the tradeoff between image clarity and file size it is suggested that a scanning resolution of 200 dpi be used for all documents. (***If your documents are quite voluminous, a slight increase in DPI from 200 to 300 DPI or greater could have a significant impact on the amount of storage space required and storage cost to host those images***). An Inspection of the documents should be performed to pre-determine quality and integrity of the documents in order to optimize scanner settings. Digital images should be stored initially in subdirectories corresponding to their current organizational structure. This aids in the tracking and QA process.

All images of scanned documents should be quality control inspected to assure that only images of the highest quality are provided to the client, and passed through the production system for data entry. Any image failing inspection must be rescanned and inspected again until desired quality is achieved.

5) Document Volumes

Volumes are viewed in two ways. The first is what is referred to as the "Backfile". This is what is typically considered older documents or a one time "Project". The second is "Recurring Volume". This can be monthly, weekly or daily scanning that needs to be done consistently over a long period of time. Usually the greater the volume the better pricing the client can negotiate. This can be a little tricky however, because what is a large volume for one vendor may not necessarily be a large volume for another. As the client you may want to ask if there are any volume price breaks, or tiered pricing.

6) Document Types

Another consideration is **document type** (dimensions and texture). The more consistency between the documents the easier they are to scan. Generally speaking, it is assumed that the documents are going to be similar in shape and size and black and white. It's when the client includes varying sizes and colors etc., all in the same file that the client begins to increase the complexity and thus the price of the job. If the vendor can scan color documents as b/w images or in a production environment then this might help to contain costs. If the title block only is sufficient for scanning of oversized documents then this too will save time and costs. Always review the files to see if there are standard recurring backsides to a document i.e. T's and C's (terms and conditions) that are in every file that do NOT need to be scanned. There are two related items to consider regarding this. The first is if these types of documents are not consistently in the same place in each folder the vendor may go to greater expense trying to find and delete them then to just scan them. The second is how significant this is in

a file. For example, if you have only 10 pages per file and one is a “T” and “C” then it is significant. However, if that same folder is 200 pages then that one page is much less significant.

Many vendors will have duplex scanners; however, there are many that still use simplex scanners. This is something you will need to check ask your vendors about. Duplex scanners have cameras on top and bottom which allow scanners to read the front and back of a document. Once data is detected on the back side of a document, the scanner will automatically slow down and scan both the front and back of the document and create two separate images in sequence. There are also sensitivity threshold settings on these types of scanners so that the vendor can set the level of data you feel is appropriate to activate the second camera. This requires some testing and work to get there but may well be worth it if you have documents that are occasionally filled out on the back that you want to capture but not always. Conversely, it may be important for you to prove there was nothing filled out on the back (like a signature) should these documents be dragged into litigation for some reason.

7) Indexing

Indexing will determine how the files are retrieved. The more characters used to reference specific documents will increase the cost per page. The greater number of pages per file the lower the overall cost.

Indexing can be one of the greatest contributors to the overall cost of the project. To understand what the potential costs are you must first understand how the client is typically charged. The client is typically charged on a **per keystroke basis**. What this means is the following:

A client first needs to decide on the number and types of fields they want to use to identify and retrieve your documents or files. Below is an illustration of a typical AP application where Vendor Name, Vendor #, Invoice #, Invoice Date and PO # are the field names.

Index Fields	**# of characters**		**Cost per keystroke**		**10 page file**	**100 page file**
Vendor #	7		.01	=	.07	
Vendor Name	10		.01	=	.10	
Invoice #	8		.01	=	.08	
Invoice Date	6		.01	=	.06	
PO #	10		.01	=	.10	
Total cost per file					$.41	$.41
Average cost per page					**$.041**	**$.0041**

What the above example illustrates is that there is a cost associated with each keystroke for each character and that this cost can be large or small on a per page basis depending on how many pages are in a file.

In one instance the client has a [100 page] file and the additional cost per page for indexing is almost negligible, on the other hand the client has the same indexing criteria but with a much smaller [10 page] file. That drives the cost up over ($.04) cents per page.

These costs are based on industry averages and they assume that the information on the client’s documents are easily found and read. However, if the index information is very hard to locate or read that could potentially have an adverse effect on the cost of indexing.

There is a way however, in which you the client could contain the cost of indexing should you have this information available to you in some form of database. The scanning vendor should be able to utilize a client provided look-up database for two things.

The first is to help control the indexing cost. If there is a common and unique field that is in both the database the client provides and in the imaging database the client desires then that field can be used as a trigger field. What this means to the client is that this is the only field that needs to be manually indexed thus greatly reducing your indexing cost.

For example, in this case the one field manually entered might be the vendor number. By entering this one trigger field and bouncing it against the provided database the vendor is able to populate other fields at a substantially reduced cost or no cost at all.

The second thing that this lookup database does for both the client and the vendor is to provide an additional tool for quality control purposes. When the two databases are put together the vendor should be able to create an exception report through the exception processing. This will make the vendor aware of everything that has fallen outside the two databases so that they can be reviewed, corrected and properly added to the database.

Note: depending on the level of data entry required and the types of documents, it is not uncommon to consider having the indexing/data entering piece done in places like India , Philippines and China and for much less. This is more common with documents where there are at least half dozen fields that need to all be manually keyed. A word of caution: the vendor must always make sure there are several checks and balances in place along the way out and back and that security is completely buttoned down.

8) Separator Sheets (Bar Coded Sheets)

Bar code sheets are use to speed up the indexing process and reduce the number of keystrokes when the files are all the same type of file with the same types of tabs within each file. An example of this might be a loan file.

By using the bar coded slip sheets the vendor will be able to provide the client with tabular information thus giving them more index fields to search from at no or very little additional costs. Typically a loan file might have as many as 12 unique tabs that are recurring in every file. An example of these tabs would be disclosure, asset/income, appraisal, misc., tax/hazard/ins, w-2/w-9/1040, HUD 1, funding sheet, deed, note, loan application, and escrow/closing. As the client, you would now be able to search for any combination of documents within the actual loan file. All these tabs would be in addition to the client's standard index fields. This is a great way to save time and money while at the same time enhancing the clients search experience and database.

9) Quality Assurance

Quality control is an integral part of any data capture process. Your vendor should work closely with the client to develop and document data capture and quality control standards for every project and document type. These standards are unique for each client and take into account any specific requirements as well as the level of accuracy required on a form-by-form, field-by-field basis.

Quality Assurance procedures are performed at all phases of the conversion process. While many vendors say they are performing a 100% quality assurance checks some may not. As the client you should ask any potential vendor to spell out their QA process. How many places along the process are they performing QA and at what junctures. Also inquire as to what steps they will take to correct anything that does slip through the cracks. And while companies do provide 100% quality assurance there is still an element of human intervention that cannot be avoided so it is important to understand how quickly any issues you discover will be resolved and remedied.

As a rule most vendors will perform some type of QC on all images and documents scanned, however, in order to ensure the highest level of accuracy 100% should be the rule rather than the exception.

As a way of **containing cost** on documents that are just going to be stored with very little likelihood that they will ever be retrieved; the client can request a lower level threshold to the quality assurance process. Should the client choose this method vendors can provide random QC or (1) one in 100 or 50 documents type QA. Keep in mind that this should not in anyway diminish the quality and level of accuracy a vendor provides in doing the work. It only reduces the level at which the work is reviewed. The company should still correct any errors found with the same vigilance and turnaround as if it were 100% QC.

Note: As a client you should always ask for a tour of the vendor's facility. Any vendor worth their salt will be only too eager to have a potential client tour their facility.

10) Length of Agreement

The last variable that may impact pricing is the length of the agreement. A good vendor will obviously hope to establish a long term relationship/partnership with their client. And while many times these may be only agreements it is the intent of both parties to work together as a partnership to continually develop and nurture that relationship over time so the finished product only gets better. This is where new ideas evolve and other opportunities to work together begin to develop.

Typically, if a client is willing to sign a three year agreement instead of a one year agreement or a five year instead of a three year you can often times get slightly better pricing. And with the ability to opt out with a 30 day written notice in most cases you really have nothing to loose by not doing it.To schedule a **FREE** one hour needs analysis please contact Curtis Pilon at 949-861-4401.

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